



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,203	01/10/2002	Rick L. Allison	1322/84	9749

25297 7590 01/10/2006

JENKINS, WILSON & TAYLOR, P. A.
3100 TOWER BLVD
SUITE 1400
DURHAM, NC 27707

EXAMINER

HU, JINSONG

ART UNIT PAPER NUMBER

2154

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,203	Applicant(s) ALLISON ET AL.	
	Examiner Jinsong Hu	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/19/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-36 are presented for examination. Claims 1, 7, 8, 15, 18, 19, 23 and 29 have been amended. Claims 37 and 28 are newly added claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-12 and 15-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Murai (US 6,952,582).

4. As per claims 1, 5-6 and 37, Murai teaches the invention as claimed a method for mobile subscriber location management and for routing messages in a mobile communications network environment, the method comprising:

in a routing node [col. 4, lines 23-27]:

receiving signaling messages transmitted between an HLR and a VLR related to the location or subscription of a mobile subscriber, extracting mobile subscriber

information from a first signaling message, caching the mobile subscriber information [col. 4, lines 43-46; col. 6, lines 34-44]; and

using the cached information in the processing and routing of subsequent signaling messages transmitted by the HLR or the VLR relating to the mobile subscriber [col. 6, lines 44-59].

5. As per claims 2-3 and 9, Murai teaches the step of receiving signaling messages includes receiving a mobile application part (MAP) UpdateLocation message and a mobile application part (MAP) InsertSubscriberData message [col. 5, lines 28-44].

6. As per claim 4, Murai teaches the step of extracting information from the first message includes extracting a mobile switching center (MSC) identifier that identifies an MSC serving the mobile subscriber [col. 5, lines 18-21].

7. As per claims 7 and 8, Murai teaches the step of caching the mobile subscriber information includes storing the information in a visitor location cache (VLC) and caching the information includes storing the information in a home location cache (HLC) [col. 4, lines 19-27].

8. As per claim 10, Murai teaches the step of using the cached information in the processing and routing of subsequent mobile signaling messages includes using the cached information to generate and route a ProvideRoamingNumber_Ack message on

Art Unit: 2154

behalf of a VLR in response to a received ProvideRoamingNumber message [col. 6, lines 39-48].

9. As per claims 11-12, Murai teaches the step of using the cached information in the processing and routing of subsequent mobile signaling messages includes using the cached information to process and route a received CancelLocation message [col. 7, lines 9-12].

10. As per claims 15-28, since they teaching same limitations as claims 1-12 form different prospectors (router side and HLR side), they are rejected under the same basis as claims 1-12 above.

11. As per claims 29-36 and 38, since they are system claims of claims 1-12, they are rejected under the same basis as claims 1-12 above.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2154

13. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai (US 6,952,582) as applied to claims 1-12 and 15-38 above.

14. As per claims 13 and 14, Murai teaches the invention substantially as claimed in claim 1. Murai also teaches a signaling/IP gateway [col. 5, lines 14-17]. Murai does not specifically teach the signaling network is SS7. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to replace the signaling network in the Murai's system with SS7 because doing so would enable the system to set up call fast via high speed switched connection. One of ordinary skill in the art would have been motivated to modify Murai's system to increase the efficiency of the system.

Conclusion

15. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinsong Hu whose telephone number is (571) 272-3965. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jinsong Hu

January 5, 2006

 **JOHN FOLLANSBEE**
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100